## **REMARKS**

The Office Action of May 16, 2005, and the cited art have been carefully considered. The application has been amended to eliminate unnecessary limitations and to correct grammatical and similar errors. Reconsideration of the rejection of the application is respectfully requested based on the amendments and following discussion.

A replacement (photocopy) of the priority document including the cover pages is enclosed.

Claims 1-12 remain in the application.

Claim 6 has been amended as to form and not as to scope, correcting the antecedent reference.

New claims 13 and 14 claim the specific chemistry described in the embodiments.

## **REJECTION 112:**

1. Claims 6 and 12 were rejected under 35 USC 112, second paragraph.

Claim 6 was cited for not having antecedent basis for "the cylindrical section" Claim 6 has been amended.

Claim 12 was cited for not having antecedent basis for "the cylindrical section" Claim 12 depends from claim 6, and claim 6 has been amended.

## **REJECTION 102:**

1. Claims 1, 5, 6, 8, and 10-12 were rejected under 35 USC 102(b) as anticipated by Hendricx U.S. 6,404,129

Hendricx '129 shows a mercury metal halide lamp. The Examiner's attention is drawn to column 4 line 23 et seq. "The ionizable filling of the discharge vessel of <u>each</u> individual lamp comprises 0.35 mg Hg..."

Hendricx '129 fails to provide a prima facia case of invalidity under 35 USC 102, since Hendricx '129 fails to show, suggest, state or claim a limitation included in applicants' claims. Hendricx '129 fails to teach a "an ionizable mercury-free fill which is enclosed in the discharge vessel, is used as a discharge medium and consists of xenon with a cold filling pressure of at least 2000 hPa and metal halides."

Mercury has been commonly used in almost all discharge lamps. It provides essential features that dominate the electrical and physical functions of these lamps. Mercury is a known environmental hazard, and its removal from lamps has been sought for many years. If Hendricx had managed to make a mercury free lamp, it would have been in the claims.

Withdrawal of the rejection and reconsideration of the rejected claims are therefore respectfully requested.

## **REJECTION 103:**

2. Claims 2, 3, 4 and 7 were rejected under 35 USC 103 over Hendricx '129 U.S. in view of Scott U.S. 6,129,889

The rejection of Claims 2, 3, 4 and 7 as being unpatentable under 35 U.S.C. 103 as being obvious over the combination of Hendricx '129 in view of Scott '889 is respectfully traversed and reconsideration thereof is requested.

Hendricx '129 shows a mercury metal halide lamp using sodium iodide and cesium iodide. The capsule is a transparent ceramic that has a particular diameter to arc length ratio. The ratio enables wall stabilization of the arc. Hendricx '129 discloses a sodium iodide and cesium iodine lamp fill formulation <u>with mercury</u>. This not the Applicant's fill formulation, nor is it mercury free, an essential, and notable goal of the Applicant.

Scott '889 shows the particular construction of a sapphire envelope, one in particular having PCA caps. Scott '889 adds nothing to Hendricx '129. The Examiner's attention is directed to column 1, line 32 et seq. where Hendricx '129 already discloses the use of a sapphire envelope. More importantly, Scott '889 does not disclose a mercury free lamp fill formulation. Nor does Scott '889 disclose, or make obvious the mercury free formulation disclosed by the Applicant.

Neither Hendricx '129 nor Scott '889 has disclosed a mercury free lamp formulation. Hendricx '129 and Scott '889 in combination do not make a mercury free lamp obvious.

3. Claim 9 was rejected under 35 USC 103 over Hendricx '129 U.S. in view of Dobrusskin U.S. 4,717,852.

Dobrusskin '852 shows an internal lamp capsule enclosed by an outer jacket.

Claim 9 is dependent from claim 8 and patentable claim 1. Dobrusskin '852 uses a mercury fill chemistry. The combination of Hendricx '129 U.S. and Dobrusskin '852 does not overcome the reasons stated above for the patentability of claim 1. The art cited is still not mercury free.

The Examiner's attention is drawn to the mercury free lamp references cited in the IDS provided along with this response. It is believed that a mercury free lamp having the chemistry claimed in new claims 13 and 14 has not been disclosed.

It is believed that a full and complete response to the Office Action has been made, that the Application as amended is patentably distinct over the cited art, and that the case is now in condition to be passed to issue. Reconsideration of the amended application is therefore requested, and an early favorable notice of allowance is courteously solicited.

Respectfully submitted,

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